

```
=> s Coeloglossum or Galeola or Gastrodia or Loroglossum or Orchis or Vanda
    13 COELOGLOSSUM
    12 GALEOLA
    1182 GASTRODIA
    16 LOROGLOSSUM
    116 ORCHIS
    177 VANDA
    3 VANDAS
    180 VANDA
        (VANDA OR VANDAS)
L4    1501 COELOGLOSSUM OR GALEOLA OR GASTRODIA OR LOROGLOSSUM OR ORCHIS
        OR VANDA
```

```
=> s l4(l)(Alzheimer's or Dementia or degenerat? or cognitive or memory )
MISMATCHED QUOTE 'ALZHEIMER'S'
Quotation marks (or apostrophes) must be used in pairs,
one before and one after the expression you are setting
off or masking.
```

```
=> s l4(l)(Alzheimer? or Dementia or degenerat? or cognitive or memory )
    51223 ALZHEIMER?
    16019 DEMENTIA
    735 DEMENTIAS
    16242 DEMENTIA
        (DEMENTIA OR DEMENTIAS)
    111183 DEGENERAT?
    24224 COGNITIVE
    1 COGNITIVES
    24224 COGNITIVE
        (COGNITIVE OR COGNITIVES)
    164597 MEMORY
    6894 MEMORIES
    166585 MEMORY
        (MEMORY OR MEMORIES)
L5    52 L4(L)(ALZHEIMER? OR DEMENTIA OR DEGENERAT? OR COGNITIVE OR MEMOR
        Y )
```

```
=> s l5 not py>=2004
    5867410 PY>=2004
L6    10 L5 NOT PY>=2004
```

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=> d ibib abs kwic 1-10
```

```
L6  ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:  2008:226708  CAPLUS
TITLE:             Preparation method of fresh rhizoma gastrodiae powder
INVENTOR(S):       Guo, Aobo; Zhu, Bangfu
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE:            Faming Zhuanli Shenqing Gongkai Shuomingshu
                   CODEN: CNXXEV
DOCUMENT TYPE:     Patent
LANGUAGE:          Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1429614	A	20030716	CN 2003-101919	20030123
PRIORITY APPLN. INFO.:				
			CN 2003-101919	20030123
AB The preparation process of fresh Rhizoma Gastrodiae powder comprises juicing fresh Rhizoma Gastrodiae (Gastrodia elata, Orchidaceae),				

extracting residues with ethanol to get extract, mixing fresh juice and extract, and spray drying to get powder. Said product can be used as food, health food, and medicine. Said process can get fresh Rhizoma Gastrodiae powder by one step, and reduce the loss of effective components. Said product contains high amount of Gastrodine, it has advantages of simple process, low cost, short production cycle, and little pollution; and can be used in mass production. Said product has effects of relieving vertigo, anticonvulsive, tranquilizing, promoting discernibility of optic nerve, promoting intelligence, strengthening brain, and antiaging; and can be used for the treatment of headache, vertigo, neurasthenia, hypertension, coronary heart disease, and angina pectoris. It is suitable for promotion of brain health of pilots, and can also be used for the prevention and treatment of senile dementia.

AB The preparation process of fresh Rhizoma Gastrodiae powder comprises juicing fresh Rhizoma Gastrodiae (Gastrodia elata, Orchidaceae), extracting residues with ethanol to get extract, mixing fresh juice and extract, and spray drying to get powder. . . . suitable for promotion of brain health of pilots, and can also be used for the prevention and treatment of senile dementia.

L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:995183 CAPLUS
DOCUMENT NUMBER: 142:225664
TITLE: Gastrodiae rhizoma extract having neuroprotective activity and composition containing same for prevention and treatment of dementia
INVENTOR(S): Kim, Hyeon Ju; Lee, Sang Han
PATENT ASSIGNEE(S): C. F. Co., Ltd., S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
KR 2003071035	A	20030903	KR 2002-10554	20020227
PRIORITY APPLN. INFO.:			KR 2002-10554	20020227
AB A pharmaceutical composition containing a Gastrodiae rhizoma extract having neuroprotective activity as a main component is provided. The extract of Gastrodiae rhizoma inhibits the death of neurons induced by amyloid β -peptide and the composition containing the same, therefore, can be used in the prevention and treatment of Alzheimer's disease, dementia or the like. Gastrodiae rhizoma is finely cut, ground and then extracted in methanol, the methanol extract of Gastrodiae rhizoma is then fractionated in Et ether, chloroform, butanol, Et acetate or the like to give an ether fraction, chloroform fraction, butanol fraction, Et acetate fraction. The effective daily amount of the Gastrodiae rhizoma extract is from about 100 to 1,000mg/kg of body weight.				
ST Gastrodia ext neuroprotectant dementia				
IT Gastrodia (Gastrodiae rhizoma extract having neuroprotective activity and composition containing same for prevention and treatment of dementia)				

L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:979907 CAPLUS
DOCUMENT NUMBER: 142:239274
TITLE: Removal method of viscous material from extract of Gastrodia rhizoma

INVENTOR(S): Lee, Ju Baek
 PATENT ASSIGNEE(S): Hanulsam Co., Ltd., S. Korea; Taegu Health College
 SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
 CODEN: KRXXA7
 DOCUMENT TYPE: Patent
 LANGUAGE: Korean
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2003029559	A	20030414	KR 2003-15577	20030313
PRIORITY APPLN. INFO.:			KR 2003-15577	20030313

AB Provided is a removal method of viscous material from an extract of Gastrodiae rhizoma by enzyme treatment. The extract of Gastrodiae rhizoma improves neurodegenerative disease and reduces blood cholesterol level. The removal method of viscous material from an extract of Gastrodiae rhizoma is characterized by treating the extract with one of amyloglucosidase and alpha-amylase at 45-95° for 0.5-2 h. The extract is obtained by washing, finely cutting and crushing fresh Gastrodiae rhizoma.

IT Nervous system, disease
 (degeneration); viscous material prepared from extract of Gastrodia rhizoma)

L6 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:576827 CAPLUS

DOCUMENT NUMBER: 140:47122

TITLE: Antagonism of rhizoma gastrodiae to lead-induced damage of hippocampus in rats

AUTHOR(S): Li, Maojin; Hu, Junfeng; Li, Guozhen; Xie, Lin
 CORPORATE SOURCE: Department of Toxicology, Shandong Institute of Occupational Hygiene and Medicine, Jinan, 250062, Peop. Rep. China

SOURCE: Zhonghua Laodong Weisheng Zhiyebing Zazhi (2002), 20(5), 331-333

CODEN: ZLWZEX; ISSN: 1001-9391

PUBLISHER: Tianjinshi Laodong Weisheng Zhiyebing Yanjiuso

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The antagonism of rhizoma gastrodiae (RGT) to the impairment of learning and memory ability induced by Lead was studied in rats. 36 Wistar rats were randomly divided into 3 groups, 12 rats in every group, (1) control group: treated with distilled water; lead group: treated with lead acetate(0.1 g/kg d); (3)lead-RGT group:lead acetate(0.1 g/kg d)+RGT(4.0 g/kg d). The ability of learning and memory of the rats was measured monthly by swimming test; 3 mo later, the rats were decapitated and nitric oxide(NO) and total antioxidative capacity(TAOC) in hippocampus were measured immediately and the examination for pathol. was also made. In swimming test, the number of seeking for anchorage in lead group(1, 2, 3 mo: 10.10±1.10, 7.80±1.32, 5.40±0.97 resp.) were significantly decreased, compared with the control(P < 0.01). The number of seeking for anchorage in RGT-lead group(1, 2, 3 mo: 11.90±0.95, 10.90±0.95, 9.7±0.96 resp.) were significantly increased, compared with lead group(P < 0.01). NO(0.733±0.015) μmol/g pro and TAOC(0.945±0.017) U/mg pro in hippocampus of lead group were significantly decreased compared with the control(P < 0.01) whereas NO(0.769±0.021) μmol/g pro and TAOC(0.986±0.010) U/mg pro in hippocampus of RGT-lead group were significantly increased compared with lead group(P < 0.01). Pathol. examination showed that in lead group, marked atrophy in hippocampus, cellular denaturation and necrosis, dissoln. and disappearance in axon were found. In lead-RGT group, the atrophy of

hippocampus was not obvious, the cell morphol. was nearly normal, no obvious abnormal changes were seen. RGT is antagonistic to the impairment of hippocampus and of learning and memory ability induced by lead.

IT Memory disorders

(memory retention defect; antagonism of rhizoma of
Gastrodia elata to lead-induced damage of hippocampus in rats)

L6 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 2002:609202 CAPLUS

DOCUMENT NUMBER: 138:68083

TITLE: Joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats

AUTHOR(S): Li, Maojin; Hu, Junfeng; Zhang, Chunling; Yu, Sufang; Han, Huifen

CORPORATE SOURCE: Department of Occupational Health, School of Public Health, Jinan, 250012, Peop. Rep. China

SOURCE: Zhongguo Gonggong Weisheng (2002), 18(3), 284-286
CODEN: ZGWEE3; ISSN: 1001-0580

PUBLISHER: Zhongguo Gonggong Weisheng Zazhishe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The antagonism of combined use of Gastrodia elata blume (GTEB) and donkey-hide gelatin (DHG) against the impairment of learning and memory induced by Pb in rats was studied. Wistar male rats were orally given GTEB (4.0 g kg-1 d-1) and/or DHG (1.0 g kg-1 d-1) after being poisoned with Pd for three months. The capacity of learning and memory of each group was measured by swimming test monthly. In the end, the rats were decapitated and nitric oxide (NO) in cerebellum tissue was measured immediately. In swimming test (seeking for platform or anchor in water), the times of directly seeking for anchor in Pd controls was significantly lower than that of the blank control (P < 0.01), which was significantly increased by GTEB and/or DHG, preferably the combined use of both. The NO in cerebellum of Pd-exposed rats was significantly decreased as compared with the blank control, which was significantly increased by GTEB and/or DHG, preferably the combined use of both. The impairment of learning and memory induced by Pd was significantly improved by GTEB and DHG alone, and effects of combined use of GTEB and DHG on that was more significant.

TI Joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats

AB The antagonism of combined use of Gastrodia elata blume (GTEB) and donkey-hide gelatin (DHG) against the impairment of learning and memory induced by Pb in rats was studied. Wistar male rats were orally given GTEB (4.0 g kg-1 d-1) and/or DHG (1.0 g kg-1 d-1) after being poisoned with Pd for three months. The capacity of learning and memory of each group was measured by swimming test monthly. In the end, the rats were decapitated and nitric oxide (NO). . . control, which was significantly increased by GTEB and/or DHG, preferably the combined use of both. The impairment of learning and memory induced by Pd was significantly improved by GTEB and DHG alone, and effects of combined use of GTEB and DHG. . .

ST lead learning memory impairment Gastrodia elata donkey
hide gelatin

IT Gastrodia elata

(GTEB (Gastrodia elata blume); joint effects of
Gastrodia elata blume and donkey -hide gelatin on decrease of
nitric oxide in cerebellum and impairment of learning and
memory induced by lead in rats)

- IT Natural products, pharmaceutical
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (GTEB (Gastrodia elata blume); joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)
- IT Brain
 (cerebellum; joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)
- IT Hide
 (donkey hide gelatin; joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)
- IT Gelatins, biological studies
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (donkey hide; joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)
- IT Equus asinus
 (donkey, donkey hide gelatin; joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)
- IT Learning
 Memory, biological
 (impairment, lead-induced; joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)
- IT 7439-92-1, Lead, biological studies
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)
- IT 10102-43-9, Nitric oxide, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (joint effects of Gastrodia elata blume and donkey -hide gelatin on decrease of nitric oxide in cerebellum and impairment of learning and memory induced by lead in rats)

L6 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 2002:3683 CAPLUS

DOCUMENT NUMBER: 136:366474

TITLE: Interaction between Gastrodia elata (orchidaceae) and

Mycena anaeotychila during seed germination

AUTHOR(S): Fan, Li; Guo, Shunxing; Xiao, Peigen

CORPORATE SOURCE: Department of Biology, Capital Normal University,

Beijing, 100037, Peop. Rep. China

SOURCE: Junwu Xitong (2001), 20(4), 539-546

CODEN: JUXIFB; ISSN: 1007-3515

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Seeds of Gastrodia elata were germinated in the presence of Mycena anaeotychila. Many seeds germinated and formed protocorms, which were colonized by fungi. Hyphae penetrated into the embryo of G. elata seeds from the stipe-cell of suspensor, and mainly distributed in the cortical cells of the basal portion of protocorm. Hyphae, intact and

active, formed pelotons in subepidermal parenchyma cells, but in inner cortical parenchyma cells they were hydrolyzed and formed degenerated hyphae. Hyphae were surrounded by electron-lucent material and protocorm cell plasma membrane, which separated hyphae from the protocorm cell cytoplasm. Protocorms cells containing degenerated hyphae were frequently recolonized by hyphae.

- AB Seeds of *Gastrodia elata* were germinated in the presence of *Mycena anoetochila*. Many seeds germinated and formed protocorms, which were colonized by fungi. . . . intact and active, formed pelotons in subepidermal parenchyma cells, but in inner cortical parenchyma cells they were hydrolyzed and formed degenerated hyphae. Hyphae were surrounded by electron-lucent material and protocorm cell plasma membrane, which separated hyphae from the protocorm cell cytoplasm. Protocorms cells containing degenerated hyphae were frequently recolonized by hyphae.

L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 1999:788812 CAPLUS

DOCUMENT NUMBER: 132:289399

TITLE: Molecular cloning of GAFF-1, an antifungal protein from *Gastrodia elata*

AUTHOR(S): Wang, Xiao-Chen; Diaz, Willson Ardiles; Bauw, Guy; Xu, Qing; Van Montagu, Marc; Chen, Zhang-Liang; Dillen, Willy

CORPORATE SOURCE: National Laboratory of Protein Engineering and Plant Genetic Engineering, Peking University, Beijing, 100871, Peop. Rep. China

SOURCE: Zhiwu Xuebao (1999), 41(10), 1041-1045

CODEN: CHWHAY; ISSN: 0577-7496

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

- AB The cloning and sequencing of a full length cDNA of GAFF-1 (*Gastrodia* antifungal protein), an antifungal protein from *Gastrodia elata* Bl. f. *flavida* S. Chow is reported. Degenerate primers were designed based on the N-terminal partial sequence from purified GAFF-1 to amplify the corresponding cDNA by rapid amplification of cDNA ends (RACE). A cDNA was obtained that contains an open reading frame for a peptide of 171 amino acids which matches the known peptide sequences: A 5'UTR (untranslated region) of 55 bp was found upstream from the translation initiation site. Two poly(A) adenylation sites were located downstream the stop codon. GAFF-1 cDNA and its deduced amino acid sequence share high homol. with the mannose binding lectins from *Epipactis helleborine*, *Listera ovata* and snowdrop (*Galanthus nivalis*). The cDNA can now be used for testing the potential of GAFF-1 for engineering fungal resistance in crop plants.

- AB The cloning and sequencing of a full length cDNA of GAFF-1 (*Gastrodia* antifungal protein), an antifungal protein from *Gastrodia elata* Bl. f. *flavida* S. Chow is reported. Degenerate primers were designed based on the N-terminal partial sequence from purified GAFF-1 to amplify the corresponding cDNA by rapid amplification. . . .

L6 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 1998:610180 CAPLUS

DOCUMENT NUMBER: 129:300133

ORIGINAL REFERENCE NO.: 129:61145a, 61148a

TITLE: Localization of acid phosphatase in the symbiotic protocorms of *Gastrodia elata*/*Mycena orchidicola*

AUTHOR(S): Fan, Li; Guo, Shunxing; Xiao, Peigen

CORPORATE SOURCE: Institute of Medicinal Plant Development, Chinese Academy of Medical Sciences & Peking Union Medical

College, Beijing, 100094, Peop. Rep. China
 SOURCE: Shanxi Daxue Xuebao, Ziran Kexueban (1998), 21(3),
 257-262
 CODEN: SDXKDT; ISSN: 0253-2395
 PUBLISHER: Shanxi Daxue Xuebao Bianjibu
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB A cytochem. method has been used to investigate the localization of acid-phosphatase in the protocorms of *Gastrodia elata* developing with one of its endomycorrhizal fungi, *Mycena orchidicola*. The reaction products, appearing within subepidermal paranchyma (SEP) and inner cortical parenchyma (ICP) cells containing hyphae, showed the two kind of cells were able to release hydrolytic enzyme to digest the invading hyphae. But, in SEP cells, no enzyme vesicles were produced, the digesting function to hyphae was lower than ICP cells, hyphal lysis was due to autolysis and action of hydrolytic enzyme derived by ICP cell. Higher acid-phosphatase activity was observed in many vesicles in ICP cells. These enzyme vesicles gathered around the invaded hyphae and often fused each other, or with protocorm cell plasma membrane surrounded hyphae to digest these hyphae. Hyphae in ICP cells finally were digested and formed degenerated hyphal clumps. The interface between protocorm cells of *G. elata* and hyphae of *M. orchidicola* showed a strong reaction, this suggested that the intersurface is related with the exchange of materials between them.

AB A cytochem. method has been used to investigate the localization of acid-phosphatase in the protocorms of *Gastrodia elata* developing with one of its endomycorrhizal fungi, *Mycena orchidicola*. The reaction products, appearing within subepidermal paranchyma (SEP) and inner. . . with protocorm cell plasma membrane surrounded hyphae to digest these hyphae. Hyphae in ICP cells finally were digested and formed degenerated hyphal clumps. The interface between protocorm cells of *G. elata* and hyphae of *M. orchidicola* showed a strong reaction, this. . .

L6 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS ON STN
 ACCESSION NUMBER: 1997:304088 CAPLUS
 DOCUMENT NUMBER: 126:325364
 ORIGINAL REFERENCE NO.: 126:63067a, 63070a
 TITLE: Gastrodin and p-hydroxybenzyl alcohol facilitate memory consolidation and retrieval, but not acquisition, in the passive avoidance task in rats
 AUTHOR(S): Hsieh, Ming-Tsuen; Wu, Chi-Rei; Chen, Chieh-Fu
 CORPORATE SOURCE: Inst. Chinese Pharmaceutical Sci., China Medical College, Taichung, Peop. Rep. China
 SOURCE: Journal of Ethnopharmacology (1997), 56(1), 45-54
 CODEN: JOEID7; ISSN: 0378-8741
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Gastrodin (GAS) and p-hydroxybenzyl alc. (HBA), an aglycon of gastrodin, are active ingredients of *Gastrodia elata*. This study investigated the effects of acute administration of GAS and HBA on learning and memory processes such as acquisition, consolidation and retrieval, by using the passive avoidance task in rats; piracetam was used as a pos. control. Scopolamine, which impairs learning acquisition, shortened the step-through latency in the retention test in rats. Piracetam, but not GAS and HBA, antagonized the shortening of the step-through latency induced by scopolamine. Cycloheximide, which impairs memory consolidation, shortened the step-through latency. GAS at 50 mg/kg, HBA at 5 mg/kg and piracetam at 100 mg/kg antagonized the shortening of the step-through latency induced by cycloheximide.

Apomorphine, which impairs memory retrieval, shortened the step-through latency in the retention test. GAS at 5 mg/kg, HBA at 1 mg/kg and piracetam at 300 mg/kg antagonized the effect of apomorphine. The facilitating effects of HBA on learning and memory were better than those of GAS. In conclusion, GAS and HBA can improve cycloheximide- and apomorphine-induced amnesia, but not scopolamine-induced acquisition impairment, in rats. Thus, GAS and HBA can facilitate memory consolidation and retrieval, but not acquisition. The facilitating effects of GAS and HBA are different from those of piracetam.

- AB Gastrodin (GAS) and p-hydroxybenzyl alc. (HBA), an aglycon of gastrodin, are active ingredients of *Gastrodia elata*. This study investigated the effects of acute administration of GAS and HBA on learning and memory processes such as acquisition, consolidation and retrieval, by using the passive avoidance task in rats; piracetam was used as a . . . rats. Piracetam, but not GAS and HBA, antagonized the shortening of the step-through latency induced by scopolamine. Cycloheximide, which impairs memory consolidation, shortened the step-through latency. GAS at 50 mg/kg, HBA at 5 mg/kg and piracetam at 100 mg/kg antagonized the shortening of the step-through latency induced by cycloheximide. Apomorphine, which impairs memory retrieval, shortened the step-through latency in the retention test. GAS at 5 mg/kg, HBA at 1 mg/kg and piracetam at 300 mg/kg antagonized the effect of apomorphine. The facilitating effects of HBA on learning and memory were better than those of GAS. In conclusion, GAS and HBA can improve cycloheximide- and apomorphine-induced amnesia, but not scopolamine-induced acquisition impairment, in rats. Thus, GAS and HBA can facilitate memory consolidation and retrieval, but not acquisition. The facilitating effects of GAS and HBA are different from those of piracetam.

L6 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:9925 CAPLUS

DOCUMENT NUMBER: 72:9925

ORIGINAL REFERENCE NO.: 72:1783a,1786a

TITLE: Cytophotometric study of nuclear proteins and nucleic

acids in parenchymatous tissue of the orchid embryo
Alvarez, Marvin R.

AUTHOR(S): Univ. of South Florida, Tampa, FL, USA

CORPORATE SOURCE: Experimental Cell Research (1969), 57(2-3), 179-84

SOURCE: CODEN: ECREAL; ISSN: 0014-4827

DOCUMENT TYPE: Journal

LANGUAGE: English

- AB Quant. changes in DNA, nuclear RNA, and nuclear proteins were investigated during early phases of degeneration in the parenchymatous region of the Vanda embryo by cytophotometric techniques. The increase in nuclear size which occurs with aging is accompanied by an increase in specific dye binding by DNA, RNA, total nuclear protein, nonhistone protein, histones, and protein-bound SH groups. DNA (Feulgen)/nucleus increased in whole-number multiples of the 2C value to 8C; beyond this level the amount of dye bound by DNA increases in unequal fractional multiples of the 2C value. A number of large nuclei were found whose d., in terms of the mol. constituents measured, is greater than would be predicted on the basis of their nuclear volume. These are tentatively interpreted as polyploid nuclei showing incipient pycnosis in which the nucleic acids and nuclear proteins are highly concentrated.
- AB Quant. changes in DNA, nuclear RNA, and nuclear proteins were investigated during early phases of degeneration in the parenchymatous region of the Vanda embryo by cytophotometric techniques. The increase in nuclear size which occurs with aging is accompanied by an increase in specific. . .

IT Vanda
(nucleic acid and protein metabolism by, parenchymatous tissue
degeneration in relation to)

=> d his

(FILE 'HOME' ENTERED AT 17:13:14 ON 19 JUN 2008)

FILE 'CAPLUS' ENTERED AT 17:13:23 ON 19 JUN 2008

L1 1 S WO2004058244/PN
SELECT L1 1 RN
L2 29813 S E1-E16

FILE 'REGISTRY' ENTERED AT 17:14:23 ON 19 JUN 2008

L3 1 S 721885-36-5/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'CAPLUS' ENTERED AT 17:17:03 ON 19 JUN 2008

L4 1501 S COELOGLOSSUM OR GALEOLA OR GASTRODIA OR LOROGLOSSUM OR ORCHIS
L5 52 S L4(L) (ALZHEIMER? OR DEMENTIA OR DEGENERAT? OR COGNITIVE OR ME
L6 10 S L5 NOT PY>=2004

=> d his all

(FILE 'HOME' ENTERED AT 17:13:14 ON 19 JUN 2008)

FILE 'CAPLUS' ENTERED AT 17:13:23 ON 19 JUN 2008

L1 1 S WO2004058244/PN
SELECT L1 1 RN
L2 29813 S E1-E16

FILE 'REGISTRY' ENTERED AT 17:14:23 ON 19 JUN 2008

L3 1 S 721885-36-5/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

FILE 'CAPLUS' ENTERED AT 17:17:03 ON 19 JUN 2008

L4 1501 S COELOGLOSSUM OR GALEOLA OR GASTRODIA OR LOROGLOSSUM OR ORCHIS
L5 52 S L4(L) (ALZHEIMER? OR DEMENTIA OR DEGENERAT? OR COGNITIVE OR ME
L6 10 S L5 NOT PY>=2004